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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,228	10/28/2003	Hong Jai Lee	1749.01	2966
29338	7590	11/16/2004		
PARK & SUTTON LLP 3255 WILSHIRE BLVD SUITE 1110 LOS ANGELES, CA 90010			EXAMINER COLE, LAURA C	
			ART UNIT 1744	PAPER NUMBER

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

10/694,228

Applicant(s)

LEE, HONG JAI

Examiner

Laura C Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10282003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-19 are objected to because of the following informalities:

Claim 1 recites the limitation "the diameter" in Line 9. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-6, and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hilfinger et al., USPN 5,613,258.

Hilfinger et al. disclose the claimed invention including a housing (22), a brush (41) that is rotatably attached to the housing (via 34, 42, 44), and a motor that is installed inside the housing and rotates the brush (28; Column 4 Lines 55-59), wherein the brush comprises a first end that is rotatably attached to the housing (via 52; see Figures 2a-3b wherein the first end is the lower end), and a second end that is opposite the first end (see Figures 2a-3b), wherein the diameter increase toward the second end (see Figures 2a and 3a). The motor selectively rotates the brush in either clockwise or counter clockwise (Column 4 Lines 55-59). The motor is powered by an electric battery (26). The diameter of

the brush linearly increases from the first end to the second end (see Figure 2a).

There is a shaft that connects the brush and the motor (34). Also, the brush further comprises a portion that has a constant diameter near the second end (see Figure 3a).

3. Claims 1, 2, 4, 10, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Riggall, Jr., USPN 1,854,626.

Riggall, Jr. discloses the claimed invention including a housing (11a), a brush (1) that is rotatably attached to the housing (via 2 and 7), and a motor that is installed inside the housing and rotates the brush (11), wherein the brush comprises a first end that is rotatably attached to the housing (see Figures 1, 3, 5; Page 1 Lines 68-86, the first end being the right most end), and a second end that is opposite the first end (see Figures 1, 3, and 5), wherein the diameter increase toward the second end (see Figures 1, 3, and 5). The motor selectively rotates the brush in either clockwise or counter clockwise (Page 3 Lines 10-20). The motor is inherently capable of being powered by household alternating current (13; Page 2 Lines 24-45.) The diameter of the brush exponentially increases in stages from the first end to the second end (see Figure 3). There is a shaft that connects the brush and the motor (2). Also, there is a cover that partially covers the brush in an arc when it is viewed in a plane perpendicular to the shaft (4; see Figure 4).

4. Claims 1, 2, 5, 6, 8, 9, 15, 16, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Blasi, USPN 2,841,806.

Blasi discloses the claimed invention including a housing (2), a brush (122 or 138; Figures 8 or 9) that is rotatably attached to the housing (via 118 or 130)), and a motor that is installed inside the housing and rotates the brush (16), wherein the brush comprises a first end that is rotatably attached to the housing (the first end is the rightmost end of the brush as shown in Figures 8 and 9 that is attached to the housing via the shaft), and a second end that is opposite the first end (see Figures 1, 8, and 9), wherein the diameter increases toward the second end (see Figures 8 and 9). The motor selectively rotates the brush in either clockwise or counter clockwise (Column 2 Lines 6-19). The diameter of the brush linearly increases in stages from the first end to the second end (see Figure 8). Also, the brush comprises a portion that has a constant diameter near the second end (at the very end, leftmost side, of the brush in Figure 8). There is a shaft that connects the brush and the motor (118 and 24). Also, there is a cover that partially covers the brush in an arc when it is viewed in a plane perpendicular to the shaft (82, 84; see Figure 4; Column 3 Lines 6-9). The size of the arc appears to be in a range from about 45 degrees to about 180 degrees as shown in Figure 4.

5. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu, USPN 4,335,480.

Liu discloses the claimed invention including a housing (26), a brush (16) that is rotatably attached to the housing (via 54 or 56), and a motor that is installed inside the housing and rotates the brush (Column 2 Lines 45-47), wherein the brush comprises a first end that is rotatably attached to the housing

(the first end is the uppermost section in Figures 1, 2, and 4 that is attached rotatably to the housing at 56; Column 3 Lines 21-25), and a second end that is opposite the first end (at 54), wherein the diameter increases toward the second end (see Figures 1, 2, and 4). The motor selectively rotates the brush in either clockwise or counter clockwise (Column 2 Lines 49-50). The motor is powered by a battery (Column 2 Line 47). The diameter of the brush linearly increases from a first end to the second end (see Figures 1, 2, and 4). There is a shaft that connects the brush and the motor (36). There is a cover (15) that partially covers the brush.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gustems, USPN 2,840,837 in view of Riggall, Jr., USPN 1,854,626.

Gustems discloses the claimed invention including a housing (12), a brush (74) that is rotatably attached to the housing (via 14), a motor (22) that is installed inside the housing and rotates the brush (Column 2 Lines 15-23), wherein the brush has a first end that is rotatably attached to the housing (the first end is the right most end of the brush as shown in Figures 1 and 2, rotatably

attached via 14), and a second end opposite the first end (see Figures 1-2). The motor may rotate the brush either clockwise or counter clockwise (Column 1 Lines 71-72). The motor is inherently capable of being powered by household alternating current (Column 1 Line 72 to Column 2 Line 4). There is a shaft (14) that connects the brush and the motor (see Figures 1-2). Also, there is a cover (78) that partially covers the brush in an arc when it is viewed in a plane perpendicular to the shaft (see Figures 4-5), wherein the arc is in a range from about 45 degrees to 180 degrees (see Figures 4 and 5). Gustems does not include a diameter of a brush that increases exponentially toward a second end.

Riggall, Jr. discloses all elements above, including a diameter of a brush that increases exponentially toward a second end of the brush (see Figure 3) so that the bristles form contours of corresponding teeth and molars (Page 2 Lines 60-97).

It would have been obvious for one of ordinary skill in the art to substitute the brush head of Gustems for one that has a diameter that increases exponentially toward a second end, such as the one that Riggall, Jr. teaches, so that the bristles are better accommodating to the natural contours and arrangements of teeth.

7. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blasi, USPN 2,841,806 in view of Mosley, USPN 4,845,796.

Blasi discloses all elements above, however does not include that the rotational speed is adjustable.

Mosley discloses a rotating toothbrush that has a variable speed control in order to adjust rotational speed (24; Column 1 Line 65 to Column 2 Line 3) to regulate the speed.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Blasi to include a variable speed control to adjust rotational speed, such as Mosley teaches, as a means to regulate the speed of the rotation of the brush depending on the users specifications.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riggall, Jr., USPN 1,854,626 in view of Mosley, USPN 4,845,796.

Riggall, Jr. discloses all elements above, however does not include that the rotational speed is adjustable.

Mosley discloses a rotating toothbrush that has a variable speed control in order to adjust rotational speed (24; Column 1 Line 65 to Column 2 Line 3) to regulate the speed.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Riggall, Jr. to include a variable speed control to adjust rotational speed, such as Mosley teaches, as a means to regulate the speed of the rotation of the brush depending on the users specifications.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu, USPN 4,335,480 in view of Mosley, USPN 4,845,796.

Liu discloses all elements above, however does not include that the rotational speed is adjustable.



Mosley discloses a rotating toothbrush that has a variable speed control in order to adjust rotational speed (24; Column 1 Line 65 to Column 2 Line 3) to regulate the speed.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Liu to include a variable speed control to adjust rotational speed, such as Mosley teaches, as a means to regulate the speed of the rotation of the brush depending on the users specifications.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 3,204,275 to Baker discloses a toothbrush that uses manual rotation means to rotate a brush that has a diameter that increases towards a second end of the brush (see Figure 4).

USPN 2,739,327 to Blair discloses a power-operated toothbrush that has a motor mounted externally of the housing, however the brush has a diameter that increases toward a second end of the brush.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281.

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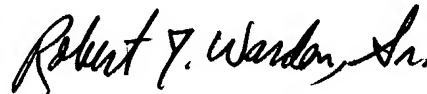
The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*LCC*

LCC

08 November 2004



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